Discover edge

Science and Literacy

DSL Pilot Program Review – Children's Village

- Where: Children's Village
- Topics: Scientific Method, Solar System/Planet Earth, Plants and Habitats, Ocean Conservation
- Time Period: 2 Months
- Format:
  - Day One – Reading/Video/Worksheet
  - Day Two – Activity
- Attendance:
  - Average of 47 students (33 Returning / 14 Exited)
  - Average of 22 Girls / 26 Boys
  - Hispanic, Asian and Haitian students

DSL Pilot Program Review – Children's Village

- Tools:
  - Worksheets
  - Magic School Bus books
  - Magic School Bus videos
  - Experiments
    - Volcano
    - Telescopes
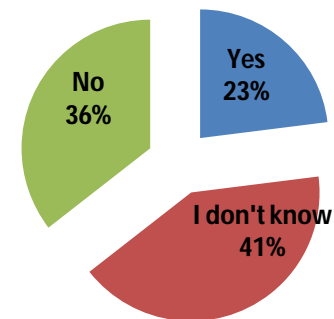   - Plants
    - Dry Ice

DSL Pilot Program Review – Children's Village

Discover: Science and Literacy

Pre-Test - Children's Village
Administered 03/20/13

Questions		Yes	I don't know	No	Total
Basic Science		8	15	18	41
Space Science		11	5	25	41
Solar System		9	21	11	41
Habitats		5	22	14	41
Plants		15	19	7	41
Oceans		6	20	15	41
Water Cycle		12	17	12	41
Total		**66**	**119**	**102**	**287**

Discover: Science and Literacy Pre-Test

No 36%

Yes 23%

I don't know 41%

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Post-Test - Children's Village
Administered 06/20/13

Questions		Yes	I don't know	No	Total
Basic Science		39	7	1	47
Space Science		37	10	0	47
Solar System		42	5	0	47
Habitats		35	12	0	47
Plants		40	6	1	47
Oceans		39	8	0	47
Water Cycle		40	6	1	47
Total		**272**	**54**	**3**	**329**

Discover: Science and Literacy Post-Test

- No 1%
- I don't know 16%
- Yes 83%
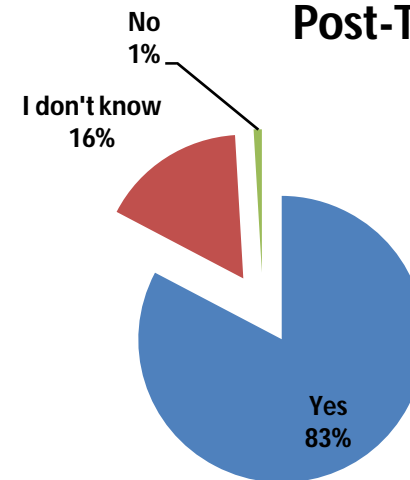
FALL Program Objectives

1. To create a product based student program, providing enrichment activities, in the areas of science and literacy.

2. To challenge students to research, develop and present a solution based on learning objectives in the areas of environmental sciences.

3. To encourage interest and provide a platform of science and literacy for South Florida children in low income and under-represented groups.

Learning Objectives

- Communication
- Creative/critical thinking and scientific reasoning
- Information literacy
- Global, cultural and historical perspectives
- Cultural and linguistic competency
- Ethical thinking
- Aesthetic appreciation

Products

- Pre-Post tests
- Worksheets
  - Folders or binders provided for worksheets and notes
- KWL analysis
- Photos of activities with student involvement

Program Logistics

- Who are we impacting?:
  - Children ages 3 and up, with a focus in early childhood.
    - Low income
    - Migrant families
    - Victims of human trafficking
    - Victims of domestic abuse

  *Special accommodations will be made for children at the Children's Village by creating a literacy program based on picture-word association practices.

Program Logistics

- Schools and alternative programs
  - Children's Village (2 days – boys/girls)
  - Redondo Elementary – 2nd Grade (2 days – 2 classes a day)
- Program run and managed by Clare Willis, Mercy Hernandez, and Priya Nembhard
- Permission forms and media forms (media - excluding Children's Village)
- Pre and Post surveys to measure impact of the program

Topics

- The Scientific Method
- The Solar System and Planet Earth
- Oceans and the Water Cycle
- Health and Well-being
- Reduce, Reuse and Recycle
- Plants and Conservation
- Technology

Presentation Format

- 7 Modules
  - Module 1 (Sept 9- Oct 4): Introduction/Scientific Method/Solar System
  - Module 2 (Oct 7- Nov 1): Ocean Conservation and Water Cycle
  - Module 3 (Nov 4- Nov 15): Health and Well-being
  - Module 4 (Dec 2- Dec 20): Reduce, Reuse and Recycle
  - Module 5 (Jan 6- Jan 31): Animals and Habitats
  - Module 6 (Feb 3 – Feb 28): Plants and Conservation
  - Module 7 (Mar 3 – Apr 18 *excluding spring break and SAT): Technology

Presentation Format

- First week of each module will include:
  - KWL Model : What you <u>know</u>. What you <u>want</u> to know. What you <u>learned</u>.
  - Introduction to vocabulary with the use of picture-word association
  - Introduction of scientist within each field (from varying ethnic backgrounds)
- Second and/or Third week of each module will include:
  - Activities and science experiments
- Fourth week of each module will include:
  - Story time and discussion
  - Review of KWL Model

Presentation Format

- Use of the MDCPS Science Common Core model.
  - Forces & motion
  - Matter properties & change
  - Earth systems, structures & processes
  - Structures & functions of living organisms
  - Evolution & genetics

Data Systems

- Collection, maintenance and reporting – data will be obtained through surveys, attendance lists and documented communication with participating groups and students.

- The participant's identity and privacy are safeguarded in all phases of the research conducted by or with the cooperation of the organization statistical analyses, reports and summaries are compiled and presented in a manner that masks the identity of the research participant.
  - Surveys –
    - » Surveys will be used to measure comprehension of the material provided.
    - » Because of the reading and writing limits of the students housed at Children's Village/Boystown the surveys will be limited to an identical pre and post survey with pictures defining Yes, No and I Don't Know.
    - » Participating elementary schools will receive the same survey
  - Attendance – For confidentiality reasons students will only be asked to sign in with their first name. Attendance records will only be used to keep record of how many children attend each session.
  - Documented communication –
    - » School staff will be present at all sessions provided.
    - » EDGE volunteers will have no type of communication with students outside of the programming hours.
    - » All emails between collaborating staff and volunteers, and data collection materials will be filed.

Data Systems

- The program supervisor and interns will manage an excel database with all client info and demographics to be updated after each program event.

  – Demographics – Only gender will be documented

- Financials will be managed by the program supervisor and Board Treasurer.

Collaborations, Partnerships, Sponsors and Coordination of Services

- EDGE Charitable Foundation
- Children's Village/Boystown
- Office of Dr. Larry Feldman/MDCPS
- LagasseSweet